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EXAMINER

ROJAS, OMAR R

ART UNIT	PAPER NUMBER
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2874

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/622,970

Applicant(s)

PIGNOT ET AL.

Examiner

Omar Rojas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 10,12,14-16 and 18-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10,12,14-16,18-22 and 24-27 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☒ Other: Detailed Action.

### **DETAILED ACTION**

This is a supplemental Office Action to the previous Office action mailed on November 16, 2005. The finality of the previous Office action was considered premature. Therefore, the finality of the previous Office action is hereby withdrawn and the previous Office action is replaced by this supplemental Office action. No new grounds of rejection have been added.

#### ***Response to Amendment***

1. With regards to the amendment filed on August 10, 2005, all the requested changes to the claims, abstract, and specification have been entered. Claims 10, 12, 14-16, and 18-27 are pending.

#### ***Response to Arguments***

2. Applicant's arguments with respect to claims 10-12 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Drawings***

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore:

- a. the "other end of one of the optical fibers being stripped and connected to one receiver" and "the other end of the other of the optical fibers being stripped and connected to the other receiver" in part (c) of claim 20 must be shown or the feature(s) canceled from the claim(s);
- b. the "one end of the sheath overlying at least one portion of the transmitter and the other end....overlying at least a portion of each one of the receivers" in part (d) of claim 20 must be shown or the feature(s) canceled from the claim(s);

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- c. the "one end of the outer sheath overlying at least a portion of the transmitter" and "the other end of the outer sheath overlying at least a portion of each one of the receivers" in part (d) of claim 21 must be shown or the feature(s) canceled from the claim(s);
- d. the "inner sheath...that overlies the optical fibers" in part (e) of claim 21 must be shown or the feature(s) canceled from the claim(s);
- e. the "a first sheath that overlies the sleeve" in part (e) of claim 22 must be shown or the feature(s) canceled from the claim(s);
- f. the "second sheath...has one end overlying at least a portion of the transmitter and another end overlying at least a portion of each of the receivers" in part (f) of claim 22 must be shown or the feature(s) canceled from the claim(s);

No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will

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be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

*Specification*

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- The "other end of one of the optical fibers being stripped and connected to one receiver" and "the other end of the other of the optical fibers being stripped and connected to the other receiver" in part (c) of claim 20 is not clearly described by the specification.
- The "one end of the sheath overlying at least one portion of the transmitter and the other end....overlying at least a portion of each one of the receivers" in part (d) of claim 20 is not clearly described by the specification.
- The "one end of the outer sheath overlying at least a portion of the transmitter" and "the other end of the outer sheath overlying at least a portion of each one of the receivers" in part (d) of claim 21 is not clearly described by the specification.
- The "inner sheath...that overlies the optical fibers" in part (e) of claim 21 is not clearly described by the specification. the "a first sheath that overlies the sleeve" in part (e) of claim 22 is not clearly described by the specification.
- The "second sheath...has one end overlying at least a portion of the transmitter and another end overlying at least a portion of each of the receivers" in part (f) of claim 22 is not clearly described by the specification.

***Claim Objections***

5. Claim 14 is objected to because of the following informalities: In claim 14, the word "last" appears to be a misspelling of the word "least." Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. **Claims 10, 12, 14, 15, and 16 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Patent No. 4,783,137 to Kosman et al. ("Kosman").**

Regarding claim 10, Kosman teaches an optical coupler (see Figures 16 and 19) for transmitting an optical signal between a first device 398 and at least a plurality of second devices (436,438), the optical coupler comprising:

A plurality of optical fibers 406 each having first and second ends, a portion of each of the fibers 406 being stripped (Figure 19), the first device 398 disposed in optical communication with the second end of each one of the plurality of optical fibers, one second device 436 disposed in optical communication with a first end of one the optical fibers 406, and another second device 438 disposed in optical communication with the first end of another of the optical fibers 406 and with the second ends of the fibers 406 being juxtaposed with the first device 398 via splice bushing 394, a sleeve 452 which surrounds the second ends of the optical fibers 406 and from which the stripped portion of each of the optical fibers protrudes, and further comprising

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A first, heat shrinkable sheath 454 that surrounds a stripped portion of each of the optical fibers which extends from the sleeve 452 to a portion 444 of optical fibers that is not stripped.

Regarding claim 12, as seen in Figure 19 of Kosman the second ends of the optical fibers 406 are stripped and disposed side-by-side, and stuck in the sleeve 452.

Regarding claim 14, Kosman discloses a second sheath 402 that meets the specified limitations

Regarding claim 15, Kosman discloses the specified limitations at col. 26, lines 6-14.

Regarding claim 16, as seen in Figure 16, the second sheath 402 has a Y-shape.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

**10. Claims 18-22 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kosman as applied to claims 10, 12, and 14-16 above, and further in view of Patent 4,923,268 to Xu ("Xu").**

Regarding claims 18-22 and 24-27, the previous remarks concerning claims 10, 12, and 14-16 are incorporated herein. It is further noted that the second sheath 402 of Kosman corresponds to the "outer sheath" of claim 21. The first sheath 454 of Kosman corresponds to the "inner sheath" of claim 21. Kosman further teaches that his first device 398 functions as a transmitter (col. 22, lines 42-49). One second device of Kosman, 436, is a receiver as clearly labeled in Figure 16.

Thus, Kosman only materially differs from claims 18-22 and 24-27 in that Kosman does not teach using a pair of receivers, but instead only teaches using one receiver 436.

Xu, on the other hand, teaches coupling a pair of receivers (42, 44) to a single transmitter 40 via optical fiber links (12, 14).

One motivation for using a pair of receivers in Kosman would be to optimize the degree of light coupling during the heat shrinking of the first sheath 454 and/or the sleeve 452. See Xu at column 4, line 59 to column 5, line 4.



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Therefore, the invention specified by claims 18-22 and 24-27 would have been obvious to one of ordinary skill in the art at the time of the claimed invention in view of Kosman combined with Xu.

***Allowable Subject Matter***

11. Claim 23 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 23, the primary reason for allowance of the claim is the inclusion of the sleeve wicks and optical fiber wicks being intermingled around the first sheath.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patent No. 5,384,875 to Shannon et al. teaches an optical fiber coupler having stripped fiber portions and protective sleeve(s).

14. The prior art cited in this Office action was listed on a previous form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Omar Rojas whose telephone number is (571) 272-2357. The examiner can normally be reached on Monday-Friday (12:00PM-8:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rod Bovernick, can be reached on (571) 272-2344. The official facsimile number for regular and After Final communications is (571) 273-8300. The examiner's RightFAX number is (571) 273-2357.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Omar Rojas  
Patent Examiner  
Art Unit 2874

or  
March 13, 2006



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